

CLAIMS

We claim:

1. A system for deploying filters for use in processing signals, comprising:  
means for calculating a filter for each of a plurality of frequency bands;  
means for grouping the filters into a plurality of groups;  
means for determining a representative filter for each group of the plurality of groups; and  
means for using the representative filter of each group for frequency bands of the each group, wherein the filters are temporal noise shaping filters (TNS) filters.
2. The system of claim 1, wherein the means for grouping groups the filters based on coefficients of the filters.
3. The system of claim 2, wherein the coefficients are PARCOR coefficients.
4. The system of claim 1, wherein the means for grouping groups the filters based on energy in the frequency bands.
5. The system of claim 1, wherein the representative filter of each group is a centroid of the filters of the group.
6. The system of claim 1, wherein the representative filter of each group is used for frequency bands of each group in lieu of the filter calculated for each of the plurality of frequency

bands.

7. A system for deploying filters for use in processing signals, comprising:
  - means for calculating a filter for each of a plurality of frequency bands;
  - means for grouping the filters into a first group and a second group;
  - means for determining a first representative filter for the first group and a second representative filter for the second group;
  - means for using the first representative filter for frequency bands of the first group; and
  - means for using the second representative filter for frequency bands of the second group,wherein the filters are temporal noise shaping filters (TNS) filters.
8. The system of claim 7, wherein the means for grouping groups the filters is based on coefficients of the filters.
9. The system of claim 8, wherein the coefficients are PARCOR coefficients.
10. The system of claim 7, wherein the grouping of the filters is based on energy in the frequency bands.
11. The system of claim 7, wherein the first representative filter is a centroid of the filters of the first group and the second representative filter is a centroid of the filters of the second group.

12. The system of claim 7, further comprising means for redefining at least one of the representative filters.

13. The system of claim 7, wherein the first and second representative filters are used for frequency bands of the first and second groups, respectively, in lieu of the filter calculated for each of the plurality of frequency bands.

14. A method of conveying filter information for a spectrum of a signal to a receiver, comprising:

transmitting information regarding a first filter;

transmitting information regarding a second filter; and

transmitting a mask to indicate switching between the first filter and the second filter across the spectrum.

15. The method of claim 14, further comprising representing the spectrum as a plurality of bands.

16. The method of claim 15, wherein the plurality of bands are scale factor bands.

17. The method of claim 15, wherein the mask includes one bit per band to indicate the switching.

18. A method of conveying filter information for a signal to a receiver, comprising:  
transmitting information regarding a first filter;  
transmitting information regarding a second filter; and  
transmitting a first negative integer when a filter is identical to the first filter.
19. The method of claim 18, further comprising:  
transmitting a second negative integer when a filter is identical to the second filter.
20. The method of claim 19, wherein the information regarding a first filter and the information regarding a second filter specify an order of the first and second filters, respectively, and are transmitted in an order field, and wherein the first and second negative integers are also transmitted in the order field.
21. A computer-readable medium storing computer instructions for controlling a computing device to deploy filters for use in processing signals, the instructions comprising the steps:  
calculating a filter for each of a plurality of frequency bands;  
grouping the filters into a plurality of groups;  
determining a representative filter for each group of the plurality of groups; and  
using the representative filter of each group for frequency bands of the each group,  
wherein the filters are temporal noise shaping filters (TNS) filters.
22. The computer-readable medium of claim 21, wherein grouping the filters is based on

coefficients of the filters.

23. The computer-readable medium of claim 22, wherein the coefficients are PARCOR coefficients.

24. The computer-readable medium of claim 21, wherein grouping the filters is based on energy in the frequency bands.

25. The computer-readable medium of claim 21, wherein the representative filter of each group is a centroid of the filters of the group.

26. The computer-readable medium of claim 21, wherein the representative filter of each group is used for frequency bands of each group in lieu of the filter calculated for each of the plurality of frequency bands.